**Procedure Title:** Recovery and Reentry

## 1.0 PURPOSE

**1.1** To provide instructions on recovery actions to restore the laboratory site or facilities to pre-emergency conditions following an emergency.

**1.2** To provide instructions on reentering and occupying areas, that were previously evacuated for a specific reason.

## 2.0 RESPONSIBILITIES

**2.1** **The Incident Commander (IC) has**: overall responsibility for recovery action, when a Crisis Manager (CM) has not been identified.

**2.2** **Supervisor of First Responders shall**: determine the safety of reentry into contaminated areas and implementing section 6.1.1 herein.

**2.3** **The Reentry Team shall**: implement Section 6.1.2 of this procedure herein.

**2.4** **The Crisis Manager (CM) shall**: appoint a Recovery Manager who will implement section 6.2 herein.

**2.5** **The Recovery Manager (RM) shall**: create the recovery team, ensure an adequate Recovery Plan is developed to address meeting plan objectives

(including ESH Issues) and direct recovery activities. See Section 6.2.2 for additional responsibilities.

**2.6 The Isotopes and Special Materials Group shall**: provide such assistance as may be required concerning the salvage of nuclear materials.

**2.7 ESH Directorate, affected Departments and Divisions shall:** provide support during the planning and implementation process.

## 3.0 DEFINITIONS/ACRONYMS

**3.1 Crisis Manager (CM):** A senior manager who interacts with the IC and external entities such as government officials and the media.

**3.2 Emergency Response Organization (ERO):** Non-uniformed BNL employees who respond to emergencies when requested and provide expertise, which may be needed to mitigate an event.

**3.3 ESH: Environment, Safety and Health**

**3.4 Incident Commander (IC):** The fire or police officer who is in charge of the scene at an emergency. The IC may also be another person as the nature and urgency of the emergency changes.

**3.5 Laboratory Spokesperson (LS):** The Crisis Manager who will speak to the media during or after an emergency.

**3.6 Nuclear Material:** All materials so designated by the Secretary of Energy. At present, these materials are depleted Uranium, enriched Uranium, Americium-241, Americium-243, Curium, Berkelium, Californium-252, Plutonium 238-242, Lithium-6, Uranium-233, natural Uranium, Neptunium-237, Deuterium, Tritium, and Thorium.

**3.7 Operational Emergency:** An unplanned event involving significant degradation of safety and time-urgent response from outside the immediate facility or area of the event.

**3.8 Public Information Officer (PIO):** That member of the emergency response organization who creates and reviews information before it is disseminated.

**3.9 RCD: Radiological Control Division**

**3.10 Recovery:** Those actions taken after a facility has been brought to a stable or shutdown condition to return the facility to normal operations.

**3.11 Reentry:** A planned activity to accomplish a specific objective(s) set by the Emergency Response Organization (ERO), conducted prior to the termination of emergency response, and involves reentering an evacuated facility or affected area that has been closed to personnel access during the course of the emergency for a specific reason.

**3.12 Recovery Manager (RM):** The person designated by the Incident Commander to oversee recovery operations.

**3.13 SBMS: Standards-Based Management System**

## 4.0 PREREQUISITES

**4.1** Assure all on-site emergency response organizations that have been activated have been consulted regarding their ability to support the recovery process.

***Note: This is part of the hazard identification process and work control development process in the work planning effort.***

**4.2** When entering into the recovery phase after a declared Operational Emergency, notify Laboratory Departments and Divisions, and as appropriate, authorities of the State of New York, Suffolk County, and DOE.

## 5.0 PRECAUTIONS

**5.1** Maintain individual radiation and toxic exposures as low as reasonably achievable to the workers and the public.

**5.2** If the facility involved contains nuclear material the Isotopes and Special Materials Group of the BNL Safeguards and Security Division shall be contacted by the IC.

**5.3** Radiological postings and surveys shall be maintained and updated as per BNL standard practices.

**5.4** Scene control shall be maintained to minimize further damage, disturbance of information relevant to the incident investigation, and to avoid personnel injury.

**5.4.1** Single facilities will normally be under the control of the facility manager (this could be the Building Manager, Principal Investigator, or other relevant authority).

**5.4.2** Larger areas will normally be access-controlled by the Safeguards and Security Division Police Group.

**5.5** Assure building structural integrity has been established prior to entry.

## 6.0 PROCEDURE

### 6.1 Reentry

#### 6.1.1 The Supervisor of First Responders, with assistance from RCD as required, shall:

- direct the formation of a reentry team(s) consisting of at least two members, one of whom is a senior technician.
- assign a reentry team leader.
- brief the team, on the following:
  - specific assignment.
  - expected or projected radiological/toxic hazards and conditions.
  - equipment, dosimetry and protective clothing to be used.
  - communications system(s) being used.
  - instructions on equipment that could be shut off safely.
  - possible route (mark on a map/floor plan).
- release team to conduct required surveys.
- establish/revise exposure limits for this phase. Monitor exposures and keep IC and PIO informed.
- inform the IC of any exposure approaching or exceeding limits set for this phase and/or those established by the BNL Rad-Con Manual and HP-SOP-022, Radiological Dose Limits and Administrative Control Levels.
- confer with the IC on the status of conditions and the feasibility of entering a recovery mode based on the radiological/toxic conditions.

#### 6.1.2 The Reentry Team shall:

- review **ALL** precautions in Section 5.0 of this procedure.

- review the plan and conduct a dry run if appropriate.
- assemble and become knowledgeable on the necessary procedures for the assignment.
- assemble required equipment and check their performance, assure equipment calibration, as applicable, is current.

## 6.2 Recovery

**6.2.1 The Crisis Manager and Incident Commander shall**: determine when a Recovery Organization is required and appoint a Recovery Manager (RM), brief the RM on all facts related to the incident, and clearly notifies all staff when they relinquish command to the RM. Examples of situations where a recovery organization may be advisable are:

- a radiological/toxic release to the environment has occurred requiring long-term environmental sampling.
- extensive modification, repair or clean up of plant systems or facilities are necessary due to the event.
- significant contamination occurred resulting in an increase in posted areas affecting routine operations.
- in-plant radiation levels have increased requiring establishment of additional access areas.

**6.2.2 Recovery Manager shall:**

- coordinate the initiation of the recovery effort with the Incident Investigation Team if one has or is to be assigned.
- define the type and responsibilities of the recovery organization using the following list:
  - type of accident (toxic, radiological, operational, etc.).
  - off-site potential (including off-site sampling, public affairs, etc.).
  - staff (will staffing be necessary for an extended period?)
  - augmentation (are normal staffing and resources sufficient for recovery?)
- identify the individuals needed for recovery.
- ensure ESH issues are addressed in the Work Planning Process.
- approve the Recovery Plan.
- notify appropriate individuals and organizations that the emergency phase is being terminated, recovery is being initiated, and clearly establish who is in charge.

- define with the CM (assumes that the RM is also the IC) a timetable for transfer of operations back to Department/Division.
- along with the appropriate Facility Manager, prepare an implementation program and schedule for recovery.
- discuss the preliminary recovery plan with the CM and management of the affected facility.
- discuss the preliminary recovery plan with the following and other agencies if appropriate:
    - National Response Center
    - DOE
    - Suffolk County officials
    - New York State officials
- relieve the IC and assume control of recovery operations, if not already done.
- establish necessary support facilities.
- continue providing the PIO with updated information.
- direct the detailed assessment of the incident:
    - Facility Systems
    - components (determine the ability of undamaged components to continue to function).
    - other laboratory function that may have been impacted.
    - the environment within the scope of recovery operations.
- provide special training and briefings as necessary for personnel brought in to assist in recovery.
- establish a review of procedures for possible variances due to the emergency.
- ensure the availability of sufficient purchasing and administrative support.
- provide information to the Facility Manger to initiate/update the Occurrence Report.

## 7.0 IMPLEMENTATION AND TRAINING

This procedure is implemented when published and the training is conducted as part of the drilling process.

## 8.0 REFERENCES

**8.1** BNL Emergency Plan

**8.2** BNL ES&H Standards and Subject Areas

**8.3** BNL Radiological Control Manual

**8.4** 10 CFR 835, Occupational Radiation Protection

**8.5** BNL SBMS Investigation of Incidents, Accidents and Injuries Subject Area

## 9.0 ATTACHMENTS

None